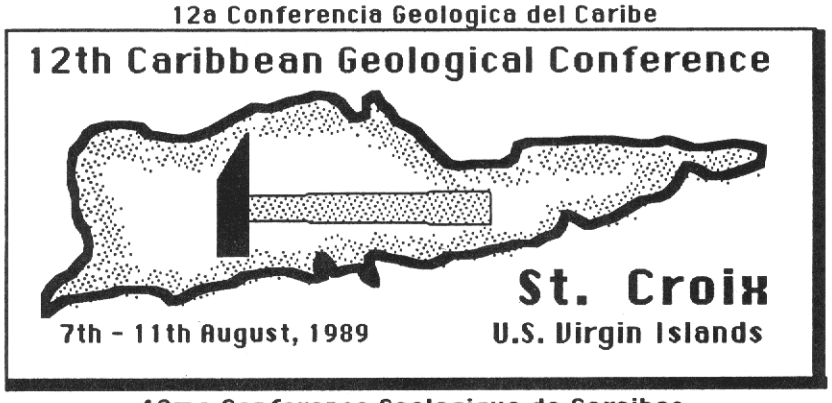
TRANSACTIONS OF THE 12TH CARIBBEAN GEOLOGICAL CONFERENCE

ST. CROIX, U.S. VIRGIN ISLANDS

August 7th - 11th, 1989



Edited by

David K. Larue
Department of Geology, University of Puerto Rico
Mayagüez, PR 00708, Puerto Rico

and

Grenville Draper
Department of Geology, Florida International University
Miami, FL 33199
U.S.A.

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P.O. Box 431552
South Miami, FL 33243, U.S.A.

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MAP OF MODERN REEFS AND SEDIMENTS OF ANTIGUA, WEST INDIES

M.P. Weiss
Dept. of Geology
Northern Illinois University
DeKalb, Illinois 60115

H. Gray Multer
9855 Canaseraga Road
Arkport, New York 14807

A colored geologic map of the submarine geology around Antigua is 70.5 x 103 cm (27.75 x 40.5 in) in size, with a scale of 1:40,000, was displayed at the Conference on St. Croix, August 7-11, 1989. The reefs and bottom sediments are mapped to a depth of about 20 m (10 fms). Five main submarine geologic units are mapped: 1) grass-held sediment, 2) linear reefs, 3) patch reefs, 4) deeper reefs, and 5) sand. Sixteen divisions of these main types are also shown. the coast of Antigua and its nearby islands is distinguished by symbols as rocky, sand beach or mangrove fringe. Certain special features, such as steep scarps, sand-filled channels in coral, and underwater bedrock outcrops are also shown.

The map was constructed photogrammetrically on a stereoplotter, using aerial photographs taken in 1954, 1958 and 1981. "Ground-truthing" was accomplished by swimming traverses, observations and sampling from boats, inspection from the shore, and some drilling. The various seafloor environments/communities are described and illustrated in color on the back of the map.

A special feature is the recognition of changes in bottom environments over time; 49 such areas are mapped, and the nature of the changes described. The sizes of such areas are also tabulated. Most show the effects of commercial and residential development on Antigua since World War II. A summary of those changes and their locations is included in the report by Weiss (this volume).

Looking to the future, the map (published in 1988) will serve as a benchmark of shallow-water environments against which to compare future observations and mapping. Copies are available for purchase from Northern Illinois University.

Reference

Weiss, M.P. and Multer, H.G., 1988, Map of modern reefs and sediments of Antigua, West Indies: Department of Geology, Northern Illinois University, DeKalb, Scale: 1:40,000.

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